

	9	18	27	36	45	54
5' CGA CCG TCC GCG GGA GAC TGA GGT CCT GAG CCG ACA GCC TCA GCT CCC TGC CAG						
	63	72	81	90	99	108
GCC AGA CCC GGC AGA CAG ATG AGG GCC CAG GAG GCC TGG CGG GCC TGG GGG CGC						
	117	126	135	144	153	162
TAC GGT GGG AGA GGA AGC CAG GGG TAC CTG CCT CTT TCC AGG GCC ACC GTT						
	171	180	189	198	207	216
GGC CCC AGC TGT GCC TTG ACT ACG TAA CAT CTT GTC CTC ACA GCC CAG AGC ATG M						
	225	234	243	252	261	270
TTC CAG ATC CCA GAG TTT GAG CCG AGT GAG CAG GAA GAC TCC AGC TCT GCA GAG F Q I P E F E P S E Q E D S S S A E						
	279	288	297	306	315	324
AGG GGC CTG GGC CCC AGC CCC GCA GGG GAC GGG CCC TCA GGc TCC GGC AAG CAT R G L G P S P A G D S P G S G K H						
	333	342	351	360	369	378
CAT CGC CAG GCC CCA GGC CTC CTG TGG GAC GCC AGT CAC CAG CAG GAG CAG CCA H R Q A P G G L L L W D A S H Q Q E Q P						

FIGURE 1A

FIGURE 1B

765	774	783	792	801	810
CTG CCC TGG GCA GCC ATC TTG AAT ATG GGC GGA AGT ACT TCC CTC AGG CCT ATG					
819	828	837	846	855	864
CAA AAA GAG GAT CCG TGC TGT CTC CTT TGG AGG GAG GGC TGA CCC AGA TTC CCT					
873	882	891	900	909	918
TCC GGT GCG TGT GAA GCC ACC GAA GGC TTG GTC CCA TCG GAA GTT TTG GGT TTT					
927	936	945	954	963	972
CCG CCC ACA GCC GCC GGA AGT GGC TCC GTG GCC CCG CCC TCA GGC TCC GGG CTT					
981	990	999	1008	1017	1026
TCC CCC AGG CGC CTG CGC TAA GTC GCG AGC CAG GTC TAA CCG TTG CGT CAC CGG					
1035	1044	1053	1062	1071	1080
GAC CCG AGC CCC CGC GAT GCC CTG GGC GCC GTG CTC ACT ACC AAA TGT TAA TAA					
1089	1098				
AGC CCG CGT CTG TGC AAA AAA AAA A 3'					

FIGURE 1C

1	M	F	Q	I	P	E	F	E	P	S	E	Q	E	D	S	S	S	A	E	R	G	L	G	P	S	P	A	G	D	G	P	S	G	K	H	H	R	Q	358673		
1	M	F	Q	I	P	E	F	E	P	S	E	Q	E	D	S	S	S	A	E	R	G	L	G	P	S	P	A	G	D	G	P	S	G	K	H	H	R	Q	GI 1683637		
41	A	P	G	L	L	W	D	A	S	H	Q	Q	E	Q	P	T	S	S	S	H	H	G	G	A	G	A	V	E	I	R	S	R	H	S	S	Y	P	A	G	T	358673
41	A	P	G	L	L	W	D	A	S	H	Q	Q	E	Q	P	T	S	S	S	H	H	G	G	R	W	G	C	G	D	P	E	S	P	Q	L	L	P	R	G	D	GI 1683637
81	E	D	D	E	G	M	G	E	E	P	S	P	F	R	G	R	S	R	S	A	P	P	N	L	W	A	A	Q	R	Y	G	R	E	L	R	R	M	S	D	E	358673
81	G	G	R	R	D	G	G	A	Q	P	P	F	R	G	R	S	R	S	A	P	P	N	L	W	A	A	Q	R	Y	G	R	E	L	R	R	M	S	D	E	GI 1683637	
121	F	V	D	S	F	K	K	G	L	P	R	P	K	S	A	G	T	A	T	Q	M	R	Q	S	S	S	W	T	R	V	F	Q	S	W	D	R	N	L	G	358673	
121	F	V	D	S	F	K	K	G	L	P	R	P	K	S	A	G	T	A	T	Q	M	R	Q	S	S	S	W	T	R	V	F	Q	S	W	D	R	N	L	G	GI 1683637	
161	R	G	S	S	A	P	S	Q																													358673				
161	R	G	S	S	A	P	S	Q																													GI 1683637				

FIGURE 2

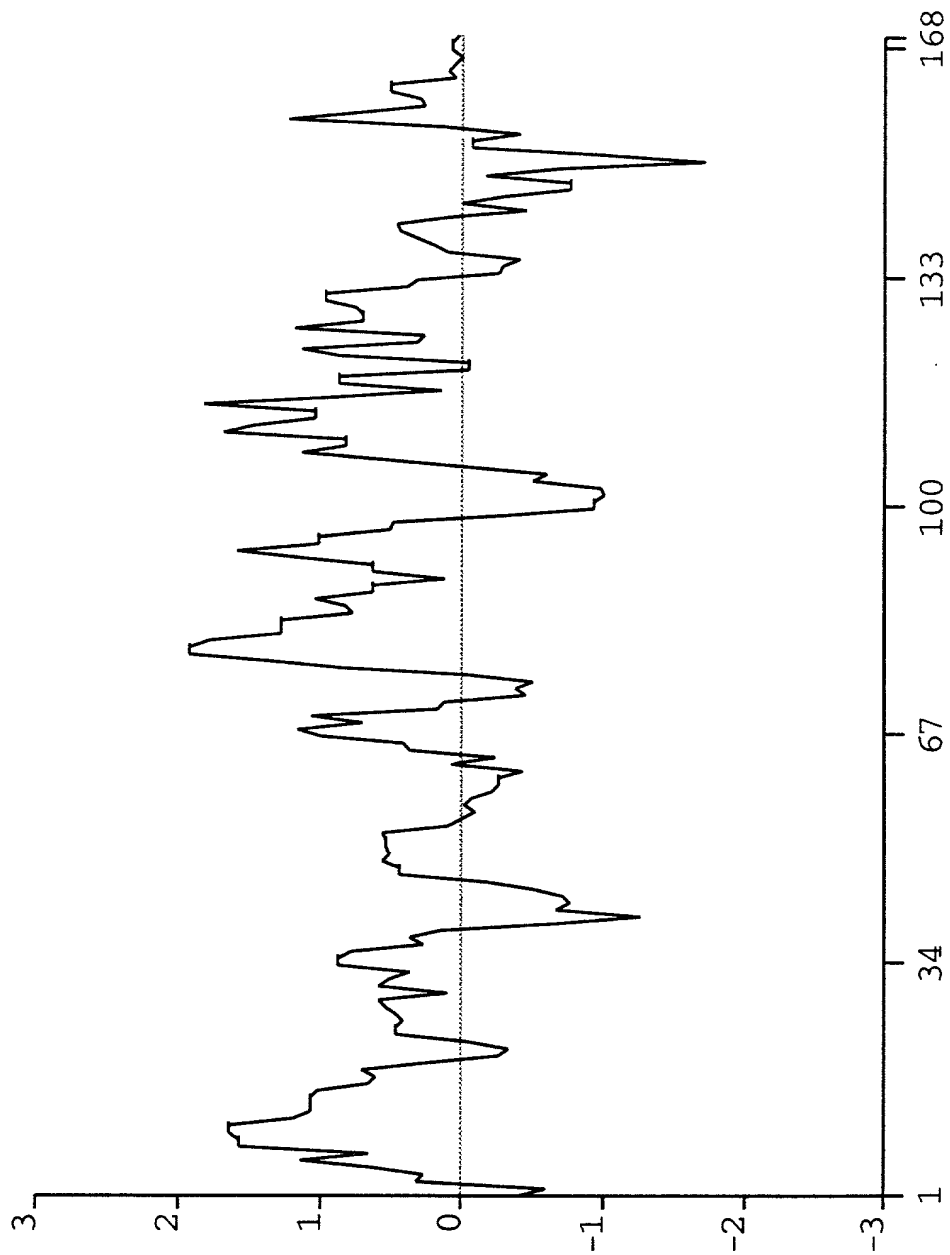


FIGURE 3A

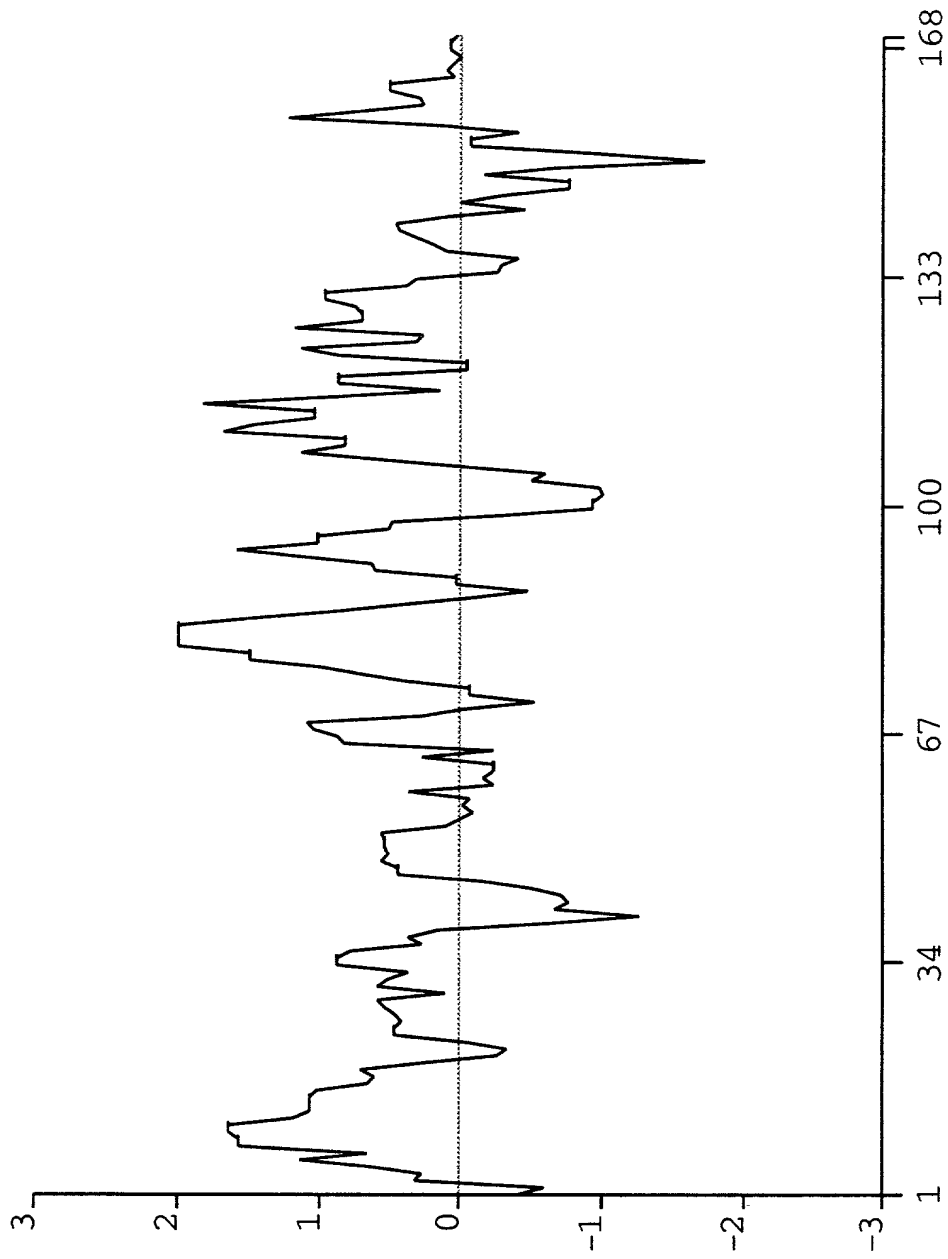


FIGURE 3B

[illegible]

FIGURE 4A

387	GGC CGG AGA GGC TCC AAC CCG GTC AAA CGC TAC GCA	405	414	423	432
	G R G S N P V K R Y A P G L P C D				
441	GTG TAC ACA TAT CTC CAT GAG AAA TAC TTA GAT TGT CAA GAA AGA AAA TTA GTT	459	468	477	486
	V Y T Y L H H E K Y L D C Q E R K L V				
495	TAT GTG CTG CCT GGT TGG CCT CAG GAT TTG CTG CAC ATG CTG CTA GCA AGA AAC	513	522	531	540
	Y V L P G W P Q D L L H M L A R N				
549	AAG ATC CGC ACA TTG AAG AAC AAC ATG TTT TCC AAG TTT AAA AAG CTG AAA AGC	567	576	585	594
	K I R T L K N N N M F S K F K L K S				
603	CTG GAT CTG CAG AAT GAG ATC TCT AAA ATT GAG AGT GAG GCG TTC TTT GGT	621	630	639	648
	L D L Q Q N E I S K I E S E A F F G				
657	TTA AAC AAA CTC ACC ACC CTC TTA CTG CAG CAC AAC CAG ATC AAA GTC TTG ACG	675	684	693	702
	L N K L L T T L L L Q H N Q I K V L T				
711	GAG GAA GTG TTC ATT TAC ACA CCT CTC TTG AGC TAC CTG CGT CTT TAT GAC AAC	729	738	747	756
	E E V F I Y T P L L L S Y L R L Y D N				

FIGURE 4B

765	774	783	792	801	810
CCC TGG CAC TGT ACT TGT GAG ATA GAA ACG CTT ATT TCA ATG TTG CAG ATT CCC					
P W H C T C E I E T L I S M L Q I P					
819	828	837	846	855	864
AGG AAC CGG AAT TTG GGG AAC TAC GCC AAG TGT GAA AGT CCA CAA GAA CAA AAA					
R N R N L G N Y A K C E S P Q E Q K					
873	882	891	900	909	918
AAT AAA AAA CTG CGG CAG ATA AAA TCT GAA CAG TTG TGT AAT GAA GAA AAG GAA					
N K K L R Q I K S E Q L C N E E K E					
927	936	945	954	963	972
CAA TTG GAC CCG AAA CCC CAA GTG TCA GGG AGA CCC CCA GTC ATC AAG CCT GAG					
Q L D P K P Q V S G R P P V I K P E					
981	990	999	1008	1017	1026
GTG GAC TCA ACT TTT TGC CAC AAT TAT GTG TTT CCC ATA CAA ACA CTG GAC TGC					
V D S T F C H N Y V V F P I Q T L D C					
1035	1044	1053	1062	1071	1080
AAA AGG AAA GAG TTG AAA AAA GTG CCA AAC AAC ATC CCT CCA GAT ATT GTT AAA					
K R K E L K K V P N N I P P D I V K					
1089	1098	1107	1116	1125	1134
CTT GAC TTG TCA TAC AAT AAA ATC AAC CAA CTT CGA CCC AAG GAA TTT GAA GAT					
L D L S Y N K I N Q L R P K E F E D					

FIGURE 4C

1143	1152	1161	1170	1179	1188
GTT CAT GAG CTG AAG AAA TTA AAC CTC AGC AGC AAT GGC ATT GAA TTC ATC GAT					
V H E L K K L L N L S S N G I E F I D					
1197	1206	1215	1224	1233	1242
CCT GCC GCT TTT TTA GGG CTC ACA CAT TTA GAA GAA TTA GAT TTA TCA AAC AAC					
P A A F L G L L T H L L E E L D L S N N					
1251	1260	1269	1278	1287	1296
AGT CTG CAA AAC TTT GAC TAT GGC GTA TTA GAA GAC TTG TAT TTT TTG AAA CTC					
S L Q N F D Y G V L E D L Y F L K L					
1305	1314	1323	1332	1341	1350
TTG TGG CTC AGA GAT AAC CCT TGG AGA TGT GAC TAC AAC ATT CAC TAC CTC TAC					
L W L R D N P W R C D Y N I H Y L Y					
1359	1368	1377	1386	1395	1404
TAC TGG TTA AAG CAC CAC TAC AAT GTC CAT TTT AAT GGC CTG GAA TGC AAA ACG					
Y W L K H H Y N V H F N G L E C K T					
1413	1422	1431	1440	1449	1458
CCT GAA GAA TAC AAA GGA TGG TCT GTG GGA AAA TAT ATT AGA AGT TAC TAT GAA					
P E E Y K G G W S V G G K Y I R S Y E					
1467	1476	1485	1494	1503	1512
GAA TGC CCC AAA GAC AAG TTA CCA GCA TAT CCT GAG TCA TTT GAC CAA GAC ACA					
E C P K D K L P A Y P E S F D Q D T					

FIGURE 4D

FIGURE 4E

FIGURE 4F

1899	1908	1917	1926	1935	1944
CTG CTT TTA GAA AAT AAA GAA AAA CTT GGT TCA TGT TTA CAT GCC TTT CGA					
1953	1962	1971	1980	1989	1998
TAG CTG TTT GTG CAT ACT TAA AGA TGA TCA AAA TGA TTT TAT ACA AAT GCT GTT					
2007	2016	2025	2034	2043	2052
ATA ATA AAA TGT CAT TCC CTA CCC CTC TAC TTT TTT TCA GTA AGT CAT CTT ATA					
2061	2070	2079			
CAT TAA ATA AAT TTC CAT TTC TGA AAA AAA A 3'					

FIGURE 4F

1	MRVVTIVILLLCFCCKAAEELRKASPGSVRSRVNHHGRAGGRR	1352286
1	MRVVTIVILLLCFCCKAAEELRKASPGSVRSRVNHHGRAGGRR	GI 1236329
41	GSNPVVKRYAPGLPCDVYTYLHEKYLDCCQERKLVYVLP GWP	1352286
41	GSNPVVKRYAPGLPCDVYTYLHEKYLDCCQERKLVYVLP GWP	GI 1236329
81	QDLLHMLLARLNKIRTLKNNMFSKFKKLSLDDLQQNEISKI	1352286
81	QDLLHMLLARLNKIRTLKNNMFSKFKKLSLDDLQQNEISKI	GI 1236329
121	ESEAFFGLNKLTTLLLQHNIQIKVLT EEFVFIYTPLLSYLRL	1352286
121	ESEAFFGLNKLTTLLLQHNIQIKVLT EEFVFIYTPLLSYLRL	GI 1236329
161	YDNPWHCTCEIEITLISMLQIPRNRNLGN YAKCESPQE QKN	1352286
161	YDNPWHCTCEIEITLISMLQIPRNRNL A N YAKCESPQE QKN	GI 1236329
201	KKLRQIKSEQLCNEE - KEQLDPPKPPQVSGRPPVIKPEVDS T	1352286
201	KKLRQIKSEQLCNEE EKEQLDPPKPPQVSGRPPVIKPEVDS T	GI 1236329
240	FCHNYVFPIQTLLDCKRKEELKKVPNNIPPDIVKLDLSYNKI	1352286
241	FCHNYVFPIQTLLDCKRKEELKKVPNNIPPDIVKLDLSYNKI	GI 1236329

FIGURE 5A

280	NQLRPKEFDVHELKKLNLSNNGIEFIDPAAFLGLTHLEE	1352286
281	NQLRPKEFDVHELKKLNLSNNGIEFIDPAGS-----	GI 1236329
320	LDLSNNSLQNFDYGVLEDLYFLKLLWLRLDNPWRCDYNIHY	1352286
312	-----LR	GI 1236329
360	LYYWLLKHHYNVHFNGGLECKTPEEYKGVSVGKYIRSYEEEC	1352286
313		GI 1236329
400	PKDKLPAYPESFDQDTEDDDEWEKKHRDHTAKKQSVIITIV	1352286
313		GI 1236329
440	G	1352286
313		GI 1236329

FIGURE 5B

FIGURE 6A

FIGURE 6B

5' NAC AGC TCG AGC TCG AGC CGC AAA ACT GTC TGC AGA CGT CAA TTT CGC CCC CCT 54
 9 18 27 36 45
 CCC CCT TGT GAG AAC TCG CTA CGT AGC CAG CAA CTG TGT AGT GTC TAC AAA TGA 108
 63 72 81 90 99
 TGA AAA CGA TCA GAA ATG CGA TTA GGT GTC GGC GAA AAA AGG GTT TCC CCT GTT 162
 117 126 135 144 153
 TTT AAC TTG TAT TTT TAC TTT AAT TGT TAC TAC AAT CTT GAT ATT CTT AAC GTG ACT 216
 171 180 189 198 207
 TTT TTG GGA AAC CAC CAA GTG CTT TTT AAG CAA GGA GTT ACT GAT TCT GAA GGA 270
 225 234 243 252 261
 AGA TTT CCA TTA GGT AAT TTG TTT AAT CAG TGC TGC AAG CGA AAT TAA GGC AAA ATG 324
 279 288 297 306 315
 GAT GTA GAA AAT GAG CAG ATA CTG AAT GTA AAC CCT GCA GAT CCT GAT AAC TTA 378
 333 342 351 360 369
 D V E N E Q I L N V N P A D P D N L

FIGURE 7A

387	AGT GAC TCT CTC TTT TCC GGT GAT GAA AAT GCT GGG ACT GAG GAA GTA AAG	405	414	423	432
	S D S L F S G D E N A G T E E V K				
441	AAT GAA ATA AAT GGA AAT TGG ATT TCA GCA TCC TCC ATT AAC GAA GCT AGA ATT	459	468	477	486
	N E I N G N W I S A S S I N E A R I				
495	AAT GCC AAG GCA AAA AGG CGA CTA AGG AAA AAC TCA TCC TCC CGG GAC TCT GGC AGA	513	522	531	540
	N A K A K R R L R K N S S S R D S G R				
549	GGC GAT TCG GTC AGC GAC AGT GGG AGT GAC GCC CTT AGA AGT GGA TTA ACT GTG	567	576	585	594
	G D S V S D S G S D A L R S G L T V				
603	CCA ACC AGT CCA AAG GGA AGG TTG CTG GAT AGG CGA TCC AGA TCT GGG AAA GGA	621	630	639	648
	P T S P K G G R L L D R R S S G K G				
657	AGG GGA CTA CCA AAG AAA GGT GGT GCA GGA GGC AAA GGT GTC TGG GGT ACA CCT	675	684	693	702
	R G L P K K K G G A G G K G V W G T P				
711	GGA CAG GTG TAT GAT GTG GAG GTG GAT GTG AAA GAT CCT AAC TAT GAT GAT	729	738	747	756
	G Q V Y D V E E V D V K D P N Y D D				

FIGURE 7B

765	774	783	792	801	810
GAC CAG GAG AAC TGT GTT TAT GAA ACT GTA GTT TTG CCT TTG GAT GAA AGG GCA					
D Q E N C V Y E T V V L P L D E R A					
819	828	837	846	855	864
TTT GAG AAG ACT TTA ACA CCA ATC ATA CAG GAA TAT TTT GAG CAT GGA GAT ACT					
F E K T L T P I I Q E Y F E H G D T					
873	882	891	900	909	918
AAT GAA GTT GCG GAA ATG TTA AGA GAT TTA AAT CTT GGT GAA ATG AAA AGT GGA					
N E V A E M L R D L N L G E M K S G					
927	936	945	954	963	972
GTA CCA GTG TTG GCA GTA TCC TTA GCA TTG GAG GGG AAG GCT AGT CAT AGA GAG					
V P V L A V S L A L E G K A S H R E					
981	990	999	1008	1017	1026
ATG ACA TCT AAG CTT CTT TCT GAC CTT TGT TGT GGG ACA GTA ATG AGC ACA ACT GAT					
M T S K L L L S D L C G T V M S T T D					
1035	1044	1053	1062	1071	1080
GTG GAA AAA TCA TTT GAT AAA TTG TTG AAA GAT CTA CCT GAA TTA GCA CTG GAT					
V E K S F D K L L L K D L P E L A L D					
1089	1098	1107	1116	1125	1134
ACT CCT AGA GCA CCA CAG TTG GTG GGC CAG TTT ATT GCT AGA GCT GTT GGA GAT					
T P R A A P Q L V G Q F I A R A V G D					

FIGURE 7C

1143	1152	1161	1170	1179	1188
GGA ATT TTA TGT AAT ACC TAT ATT GAT AGT TAC AAA GGA ACT GTA GAT TGT GTG					
G I L C N T Y I D S Y K G T V D C V					
1197	1206	1215	1224	1233	1242
CAG GCT AGA GCT GCT CTG GAT AAG GCT ACC GTG CTT CTG AGT ATG TCT AAA GGT					
Q A R A A L D K A T V L L S M S K G					
1251	1260	1269	1278	1287	1296
GGA AAG CGT AAA GAT AGT GTG TGG GGC TCT GGA GGT GGG CAG CAA TCT GTC AAT					
G K R K D S V W G S G G Q Q S V N					
1305	1314	1323	1332	1341	1350
CAC CTT GTT AAA GAG ATT GAT ATG CTG CTG AAA GAA TAT TTA CTC TCT GGA GAC					
H L V K E I D M L L K E Y L L S G D					
1359	1368	1377	1386	1395	1404
ATA TCT GAA GCT GAA CAT TGC CTT AAG GAA CTG GAA GTA CCT CAT TTT CAC CAT					
I S E A E H C L K E L E V P H F H H					
1413	1422	1431	1440	1449	1458
GAG CTT GTA TAT GAA GCT ATT ATA ATG GTT TTA GAG TCA ACT GGA GAA AGT ACA					
E L V Y E A I I M V L E S T G E S T					
1467	1476	1485	1494	1503	1512
TTT AAG ATG ATT TTG GAT TTA TTA AAG TCC CTT TGG AAG TCT TCT ACC ATT ACT					
F K M I L D L L K S L W K S S T I T					

FIGURE 7D

1521	1530	1539	1548	1557	1566
GTA GAC CAA ATG AAA AGA GGT TAT GAG AGA ATT TAC AAT GAA ATT CCG GAC ATT					
V D Q M K R G Y E R I Y N E I P D I					
1575	1584	1593	1602	1611	1620
AAT CTG GAT GTC CCA CAT TCA TAC TCT GTG CTG GAG CGG TTT GTA GAA GAA TGT					
N L D V P H S Y S V L E R F V E C					
1629	1638	1647	1656	1665	1674
TTT CAG GCT GGA ATA ATT TCC AAA CAA CTC AGA GAT CTT TGT CCT TCA AGG GGC					
F Q A G I I S K Q L R D L C P S R G					
1683	1692	1701	1710	1719	1728
AGA AAG CGT TTT GTA AGC GAA GGA GAT GGA GGT CGT CTT AAA CCA GAG AGC TAC					
R K R F V S E G D G G R L K P E S Y					
1737	1746	1755	1764	1773	1782
TGA ATA TAA GAA CTC TTG CAG TCT TAG ATG TTA TAA AAA TAT ATA TCT GAA TTG					
1791	1800	1809	1818	1827	1836
TAA GAG TTG TTA GCA CAA GTT TTT TTT TTT TTT TTT TAA GCA CTT GTT TTG					
1845	1854	1863	1872	1881	1890
GGT ACA AGG CAT TTC TGA CAT TTT ATA AAC CTA CAT TTA AGG GGA ATT TTT AAA					

FIGURE 7E

1899	1908	1917	1926	1935	1944
GGA AAT GTT TTT TCT TTT TTT GTT TTT CGA GGG GGC AAG GAG GGA CAG AAA					
1953	1962	1971	1980	1989	1998
AGT AAC CTC TTC TTA AGT GGA ATA TTC TAA TAA GCT ACC TTT TGT AAG TGC CAT					
2007	2016	2025	2034	2043	2052
GTT TAT TAT CTA ATC ATT CCA AGT TTT GCA TTG ATG TCT GAC TGC CAC TCC TTT					
2061	2070	2079	2088	2097	2106
CTT TCA AGG ACA GTG TTT TTT GTA GTA AAA TCA CTG GTT TAT ACA AAG CTT TAT					
2115	2124	2133	2142	2151	2160
TTA GGG GGT AAA GTT AAG CTG CTA AAA CCC CAT GTT GGC TGC TGC TGT TGA GAT					
2169	2178	2187	2196	2205	2214
ACT GTG CTT TGG GAG TAA AAA AAG AAA GTT ATT TCT TTG TCT TAA AGA ATT TTT					
2223	2232	2241	2250	2259	2268
AAA AAA TTA GTC ATG AGA CTT ATT CAT CTT TCC AGG GAA CAT ACT GAT TGG TCT					

FIGURE 7F

Figure 7G

2277	2286	2295	2304	2313	2322
TAA AAG ACT AGA CAG TTA AGT AAA AGG TGG CTG GAA CAT CTA TTT TTC TAC AAA					
2331	2340	2349	2358	2367	2376
ACT GGA AAA ATG AAC CTG GTT CTA GAA GAA TGT ACA CCA AAA TAA AAC ATG TGA					
2385	2394				
AGC AGT ATT GAA AAA AAA AA 3'					

FIGURE 7G

1	MDVENEQILNVNPA	815087
1	MDIENEQT	GI 1384078
41	NGNWISSINEARINAKAKRRRLRKNSSRRD	815087
41	NGNWISSITINEARINAKAKRRRLRKNSSRRD	GI 1384078
81	GSDALRSGLTVPTSPKGRLLDRRSRSGKGRGLPKKGGAGG	815087
81	GSEAVRSGVAVPTSPKGRLLDRRSRSGKGRGLPKKGGAGG	GI 1384078
121	KGVWGTGGQVYDVEEVDDVPNYDDDDQENCVYETVVLPLD	815087
121	KGVWGTGGQVYDVEEVDDVPNYDDDDQENCVYETVVLPLD	GI 1384078
161	ERAFEKTLTPIIQEEYFEHGD	815087
161	ETAFEKTLTPIIQEEYFEHGD	GI 1384078
201	PVLAVSLALEGKASHREMTSKLLSLDLCGTVMST	815087
201	PVLAVSLALEGKASHREMTSKLLSLDLCGTVMST	GI 1384078
241	DKLLKDLLPELALDTPRAPQLVGQFIARAVGDGILCNTYID	815087
241	DKLLKDLLPELALDTPRAPQLVGQFIARAVGDGILCNTYID	GI 1384078

FIGURE 8A

281	S Y K G T V D C V Q A R A A L D K A T V L L S M S K G G K R K D S V W G S G G G	815087
281	S Y K G T V D C V Q A R A A L D K A T V L L S M S K G G K R K D S V W G S G G G	GI 1384078
321	Q Q S V N H L V K E I D M L L K E Y L L S G D I S E A E H C L K E L E V P H F H	815087
321	Q Q P V N H L V K E I D M L L K E Y L L S G D I S E A E H C L K E L E V P H F H	GI 1384078
361	H E L V Y E A I I M V L E S T G E S T F K M I L D L L K S L W K S S T I T V D Q	815087
361	H E L V Y E A I V M V L E S T G E S A F K M I L D L L K S L W K S S T I T I D Q	GI 1384078
401	M K R G Y E R I Y N E I P D I N L D V P H S Y S V L E R F V E E C F Q A G I I S	815087
401	M K R G Y E R I Y N E I P D I N L D V P H S Y S V L E R F V E E C F Q A G I I S	GI 1384078
441	K Q L R D L C P S R G R K R F V S E G D G G R L K P E S Y	815087
441	K Q L R D L C P S R G R K R F V S E G D G G R L K P E S Y	GI 1384078

FIGURE 8B

103290" 2544360

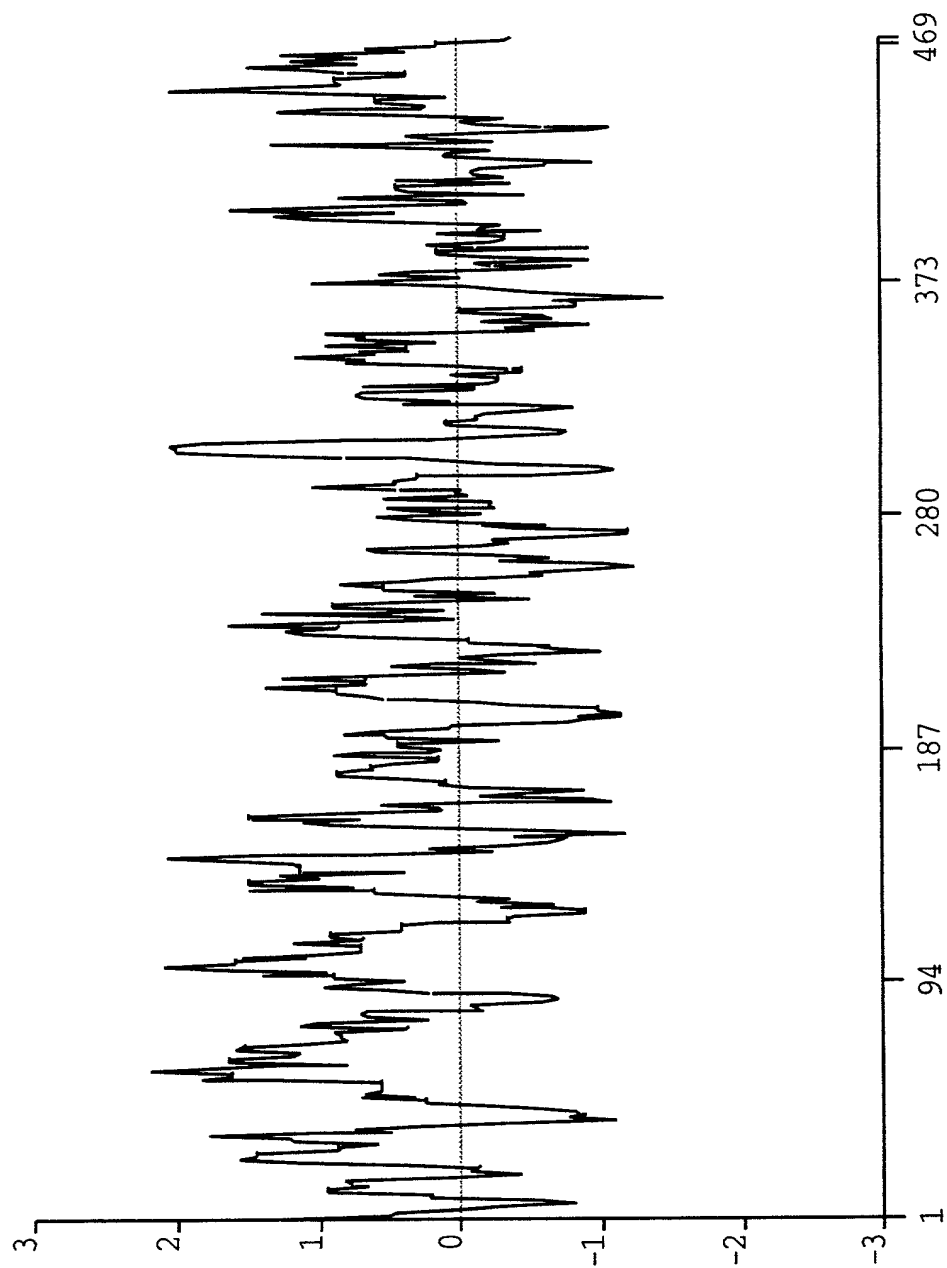


FIGURE 9A

FIGURE 9B